09/416,022

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     FILE 'REGISTRY' ENTERED AT 14:33:59 ON 12 JUN 2001
L1                SCREEN 1821 OR 1822 OR 1823 OR 1824
L2                STRUCTURE UPLOADED
L3                QUE L2 AND L1 AND L1
L4              1 S L3
L5             33 S L3 SSS FUL

     FILE 'CAPLUS' ENTERED AT 14:34:59 ON 12 JUN 2001
L6             12 S L5

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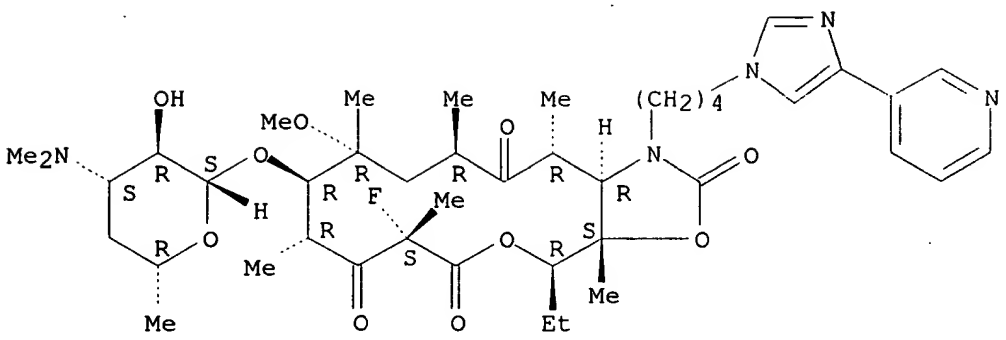
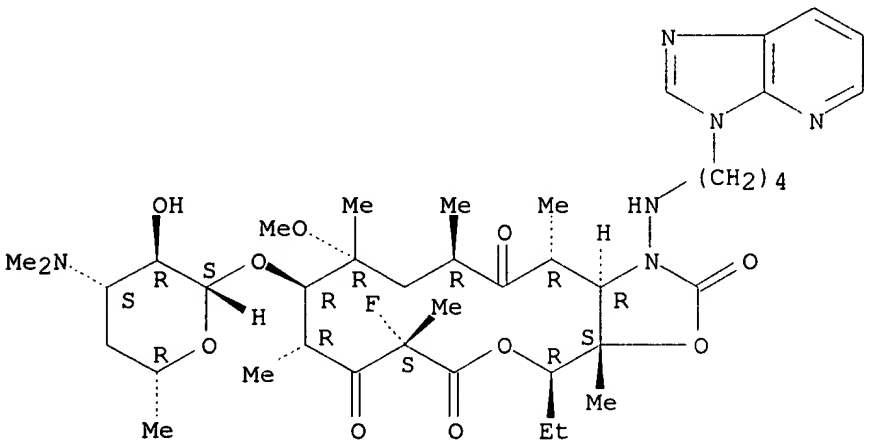
L6 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2001 ACS
AN 2001:75624 CAPLUS
DN 134:292622
TI Structure-activity relationships for six ketolide antibiotics
AU Champney, W. Scott; Tober, Craig L.
CS Department of Biochemistry and Molecular Biology, J.H. Quillen College of Medicine, East Tennessee State University, Johnson City, TN, 37614, USA
SO Curr. Microbiol. (2001), 42(3), 203-210
CODEN: CUMIDD; ISSN: 0343-8651
PB Springer-Verlag New York Inc.
DT Journal
LA English
AB Six structurally related 3-keto-substituted macrolide antibiotics (ketolides) were compared for concn.-dependent inhibitory effects on growth rate, viable cell no., and protein synthesis rates in Staphylococcus aureus cells. Inhibitory effects on 50S ribosomal subunit formation were also examd., as this is a second target for these antibiotics. A concn. range of 0.01 to 0.1 .mu.g/mL was tested. An IC50 for inhibition of translation and 50S synthesis was measured for each compd., to relate structural features to inhibitory activity. ABT-773 was the most effective of the six compds. tested with an IC50 = 0.035 .mu.g/mL. HMR 3004 was almost as effective with an IC50 = 0.05 .mu.g/mL. Two 2-fluoroketolides (HMR 3562 and HMR 3787) were equiv. in their inhibitory activity with an IC50 = 0.06 .mu.g/mL. Telithromycin (HMR 3647) had an IC50 = 0.08 .mu.g/mL, and HMR 3832 was least effective with an IC50 = 0.11 .mu.g/mL. Each antibiotic had an equiv. inhibitory effect on translation and 50S subunit formation. These results indicate specific structural features of these antimicrobial agents, which contribute to defined inhibitory activities against susceptible organisms.
IT **193752-41-9**, HMR 3562 **334778-44-8**, HMR 3787
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(structure-activity relationships for six ketolide antibiotics)
RN 193752-41-9 CAPLUS
CN 2H-Oxacyclotetradecino[4,3-d]oxazole-2,6,8,14(1H,7H,9H)-tetrone, 4-ethyl-7-fluorooctahydro-11-methoxy-3a,7,9,11,13,15-hexamethyl-1-[4-[4-(3-pyridinyl)-1H-imidazol-1-yl]butyl]-10-[[3,4,6-trideoxy-3-(dimethylamino)-.beta.-D-xylo-hexopyranosyl]oxy]-, (3aS,4R,7S,9R,10R,11R,13R,15R,15aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 334778-44-8 CAPLUS
CN 2H-Oxacyclotetradecino[4,3-d]oxazole-2,6,8,14(1H,7H,9H)-tetrone, 4-ethyl-7-fluorooctahydro-1-[[4-(3H-imidazo[4,5-b]pyridin-3-yl)butyl]amino]-11-methoxy-3a,7,9,11,13,15-hexaamethyl-10-[[3,4,6-trideoxy-3-(dimethylamino)-.beta.-D-xylo-hexopyranosyl]oxy]-, (3aS,4R,7S,9R,10R,11R,13R,15R,15aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 50
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